Malaysian Communications and Multimedia Commission
Suruhanjaya Komunikasi dan Multimedia Malaysia

Public Consultation Report

Proposed Malaysia's Position for World Radiocommunication Conference 2023 (WRC-23) Agenda Items

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MALAYSIA'S POSITION FOR WRC-23 AGENDA ITEMS

On 17 July 2023, the Malaysian Communications and Multimedia Commission ("MCMC") published a Public Consultation (PC) document which invited industry experts, interested parties and members of the public to submit their views on the proposed Malaysia's positions on WRC-23 agenda items. This PC was carried out from 17 July to 16 August 2023.

By the end of the PC period at 12:00 noon on 16 August 2023, MCMC received twenty-six (26) written submissions from telecommunication companies, satellite network operators, standardisation bodies, application providers as well as equipment manufacturers. The final Malaysia's position on the WRC-23 agenda items are listed in the table below.

Agenda Item	Subject	Malaysia's Position
Fixed, Mobile and Broadcasting Issues		
1.1	To consider, based on the results of the ITU-R studies, possible measures to address, in the frequency band 4800-4990 MHz, protection of stations of the aeronautical and maritime mobile services located in international airspace and waters from other stations located within national territories, and to review the pfd criteria in No. **5.441B** in accordance with Resolution **223 (Rev.WRC-19)**.	Malaysia supports the appropriate regulatory provision to ensure the continued operation of aeronautical mobile service (AMS) and maritime mobile service (MMS) stations in the 4800-4990 MHz frequency band while facilitating the use of the band for IMT.

Agenda Item	Subject	Malaysia's Position
1.2	To consider identification of the frequency bands 3300-3400 MHz, 3600-3800 MHz, 6425-7025 MHz, 7025-7125 MHz and 10.0-10.5 GHz for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution **245 (WRC-19)**.	Malaysia supports the identification of IMT in the 7025-7125 MHz frequency band with appropriate regulatory and technical conditions, taking into account the results of studies to ensure the protection of services to which the frequency band is allocated on a primary basis and in adjacent bands. Malaysia notes that the following frequency bands are being considered for other Regions and has no objection for potential IMT identification: • 3600-3800 MHz and 3300-3400 MHz (Region 2); • 3300-3400 MHz (amend footnote in Region 1); • 6425-7025 MHz (Region 1); and • 10.0-10.5 GHz (Region 2).
1.3	To consider primary allocation of the band 3600-3800 MHz to mobile service within Region 1 and take appropriate regulatory actions, in accordance with Resolution **246 (WRC-19)**.	Malaysia is of the view that the upgrade of mobile service primary allocation in Region 1 in the 3.6-3.8 GHz frequency band shall not have any adverse effect on the existing services and their future development in Region 3.

Agenda Item	Subject	Malaysia's Position
1.4	To consider, in accordance with Resolution **247 (WRC-19)**, the use of high-altitude platform stations as IMT base stations (HIBS) in the mobile service in certain frequency bands below 2.7 GHz already identified for IMT, on a global or regional level.	Malaysia supports establishing regulatory provisions for the use of HIBS in certain frequency bands below 2.7 GHz already identified for IMT referred to in Resolution **247 (WRC-19)**, provided that the regulatory provisions will ensure protection of the existing services to which the frequency band is allocated on a primary basis, and the adjacent bands, as well as no additional regulatory or technical constraints imposed on the deployment of ground-based IMT systems in those frequency bands.
1.5	To review the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz in Region 1 and consider possible regulatory actions in the frequency band 470-694 MHz in Region 1 on the basis of the review in accordance with Resolution **235 (WRC-15)**.	Malaysia supports the conclusion reached on agenda item 1.5 that this is a Region 1 issue and WRC-23 decisions shall in no way adversely affect Region 3 frequency allocations and existing and future use of the relevant frequency band.
9.1 (c)	Study the use of International Mobile Telecommunication systems for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis, in accordance with **Resolution 175 (WRC-19)**.	Malaysia supports **No Change** to the Radio Regulations under agenda item 9.1 topic c), except for suppression of Resolution **175 (WRC-19).**

Agenda Item	Subject	Malaysia's Position
Article 21.5	To study, as a matter of urgency: a) the applicability of the limit specified in No. **21.5** of the Radio Regulations to IMT stations, that use an antenna that consists of an array of active elements, with a view to recommend ways for its possible replacement or revision for such stations, as well as any necessary updates to Table 21-2 related to terrestrial and space services sharing frequency bands; and b) verification of No. **21.5** regarding the notification of IMT stations that use an antenna that consists of an array of active elements, as appropriate.	Malaysia to consider the possible and practical alternative approaches/solutions merit and appropriate regulatory provisions/measures for the operation of terrestrial IMT, space services and their future development in a balanced and fair manner if feasible.
Aeronautical, Maritime and Amateur Issues		
1.6	To consider, in accordance with Resolution **772 (WRC-19),** regulatory provisions to facilitate radiocommunications for sub-orbital vehicles.	Malaysia is of the view that possible spectrum is required for stations on board sub-orbital vehicles, appropriate modification, if any, to the RR, excluding any new allocations or changes to the existing allocations in RR Article **5**. The sub-orbital vehicles shall not affect the existing civil aviation and space launch systems, and shall not impose any additional constraint on other services or applications operated in the same services. Malaysia supports **Method B** and does not oppose any approach under Method B.

Agenda Item	Subject	Malaysia's Position
1.7	To consider a new aeronautical mobile-satellite (R) service (AMS(R)S) allocation in accordance with Resolution **428 (WRC-19)** for both the Earth-to-space and space-to-Earth directions of aeronautical VHF communications in all or part of the frequency band 117.975-137 MHz, while preventing any undue constraints on existing VHF systems operating in the AM(R)S, the ARNS, and in adjacent frequency bands.	Malaysia supports new allocation to the AMS(R)S in the 117.975-137 MHz frequency band, or part thereof, limited to non-geostationary satellite systems and to internationally standardized aeronautical systems while ensuring coexistence with existing services/applications in the same and adjacent frequency bands as indicated in **Method B** and does not oppose any method under **Method B**. In addition, Malaysia is of the view that a new WRC-23 Resolution may be required to address AMS(R)S regulatory framework particularly in addressing the respective roles of ITU and International Civil Aviation Organization (ICAO).
1.8	To consider, on the basis of ITU-R studies in accordance with Resolution **171 (WRC-19),** appropriate regulatory actions, with a view to reviewing and, if necessary, revising Resolution **155 (Rev.WRC-19)** and No. **5.484B** to accommodate the use of fixed-satellite service (FSS) networks by control and non-payload communications of unmanned aircraft systems.	Unless all safety issues been resolved at WRC-23, Malaysia supports suppression of RR No. **5.484B** together with Resolution **155 (Rev.WRC-19)** and Resolution **171 (WRC-19)** as indicated in **Method A** which resulted UAS CNPC shall not operate using FSS bands.

Agenda Item	Subject	Malaysia's Position
1.9	To review Appendix **27** of the Radio Regulations and consider appropriate regulatory actions and updates based on ITU-R studies, in order to accommodate digital technologies for commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (route) service and ensure coexistence of current HF systems alongside modernized HF systems, in accordance with Resolution **429 (WRC-19)**.	Malaysia supports modifications to the Radio Regulations (RR) to accommodate digital technologies for aeronautical wideband HF systems, while ensuring compliance with safety requirements and protection of other primary services in the same and adjacent bands, in particular, the existing AM(R)S HF systems as indicated in **Method B**.
1.10	To conduct studies on spectrum needs, coexistence with radiocommunication services and regulatory measures for possible new allocations for the aeronautical mobile service for the use of non-safety aeronautical mobile applications, in accordance with Resolution **430 (WRC-19)**.	Malaysia is of the view that the protection of existing primary services in the 15.4-15.7 GHz and 22-22.21 GHz frequency bands and in the adjacent frequency bands shall be ensured.
1.11	To consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of e navigation, in accordance with Resolution **361 (Rev.WRC-19)**.	**Issue A:** Malaysia supports **Method A** which contained regulatory actions to implement GMDSS modernisation, taking into consideration the consequential amendments by the decision of IMO, as follows:

Agenda Item	Subject	Malaysia's Position
		• Removal of narrow band direct printing (NBDP) from the GMDSS; • Introduction of the NAVDAT frequencies in the Appendix 15 of the Radio Regulations; • Implementation of an automatic connection system (ACS) for DSC in MF and HF frequency bands; • Inclusion of AIS SART as homing equipment for survival craft stations; and • Removal of the use of satellite EPIRBs in 1.6 GHz frequency band. Malaysia does not oppose any alternative for Issue A regarding 1.6 GHz band. **Issue B:** Malaysia supports no change to RR as indicated in **Method B**. **Issue C:** Malaysia supports the introduction of the existing geostationary satellite system/networks described in the CPM Report into the GMDSS, provided that coordination and notification in accordance with the relevant and applicable provisions of Articles **9** and **11** of the Radio Regulations and associated Rules of Procedure to be completed in order to protect services to which the bands are currently allocated.

Agenda Item	Subject	Malaysia's Position
9.1 (b)	Review of the amateur service and the amateur-satellite service allocations in the frequency band 1240-1300 MHz to determine if additional measures are required to ensure protection of the radionavigation-satellite (space-to-Earth) service operating in the same band in accordance with Resolution **774 (WRC-19)**.	Malaysia supports **No Change** to Radio Regulations where amateur services are to continue operate while ensuring protection to RNSS (space-Earth) in the 1240- 1300 MHz frequency band.
Resolution 427	To study the Articles, limited to Chapters IV, V, VI and VIII of Volume I of the Radio Regulations and their associated Appendices, as appropriate, in order to identify outdated aeronautical provisions with respect to ICAO standards and recommended practices and to develop examples of regulatory texts for updating these provisions, while ensuring that potential changes to such provisions will not impact any other systems or services operating in accordance with the Radio Regulations".	Malaysia supports **No Change** to Chapters IV, V, VI and VIII of Volume I of the Radio Regulations. However, Malaysia does not oppose should there any further studies to be conducted by ITU-R to identify outdated aeronautical provisions, and the development of regulatory texts for updating these provisions.

Agenda Item	Subject	Malaysia's Position
Science Issues		
1.12	To conduct, and complete in time for WRC-23, studies for a possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders within the range of frequencies around 45 MHz, taking into account the protection of incumbent services, including in adjacent bands, in accordance with Resolution **656 (Rev.WRC-19)**.	Malaysia supports **Method A1**, to establish new secondary allocation to the Earth exploration-satellite service (EESS) (active) in the 40-50 MHz frequency band, limited to the operation of spaceborne radar sounders, while ensuring protection to incumbent services in and adjacent bands.
1.13	To consider a possible upgrade of the allocation of the frequency band 14.8-15.35 GHz to the space research service, in accordance with Resolution **661 (WRC-19)**.	Malaysia may support **Method B**, to upgrade space research service (space-to-space) from secondary to primary status in the 14.8-15.35 GHz frequency band, subject to the completion of ITU-R Working Pary 7B studies on the protection to incumbent terrestrial services.
1.14	To review and consider possible adjustments of the existing or possible new primary frequency allocations to EESS (passive) in the frequency range 231.5-252 GHz, to ensure alignment with more up-to-date remote-sensing observation requirements, in accordance with Resolution **662 (WRC-19)**.	Malaysia supports **Method B**, new primary allocation for EESS (passive) in the 239.2-242.2 GHz and 244.2-247.2 GHz frequency bands and shifts the current fixed and mobile services allocations in the 239.2-241 GHz frequency band to 235-238 GHz frequency band.

Agenda Item	Subject	Malaysia's Position
9.1 (a)	In accordance with Resolution **657 (Rev.WRC-19),** review the results of studies relating to the technical and operational characteristics, spectrum requirements and appropriate radio service designations for space weather sensors with a view to describing appropriate recognition and protection in the Radio Regulations without placing additional constraints on incumbent services.	Malaysia supports ITU studies relating to definition of space weather and appropriate radiocommunication designations for operation of space weather sensors.
9.1 (d)	Protection of EESS (passive) in the frequency band 36-37 GHz from non-GSO FSS space stations.	Malaysia supports protection of EESS (passive) sensors, including cold-sky calibration in the 36-37 GHz frequency band from non-GSO FSS operating in the 37.5-38 GHz frequency band.
Resolution 655	Definition of time scale and dissemination of time signals via radiocommunication systems.	Malaysia supports modification to Resolution **655 (WRC-15)** to reflect decision made by CGPM.

Agenda Item	Subject	Malaysia's Position
Satellite Issues		
1.15	To harmonize the use of the frequency band 12.75-13.25 GHz (Earth-to-space) by earth stations on aircraft and vessels communicating with geostationary space stations in the fixed-satellite service globally, in accordance with Resolution **172 (WRC-19)**.	Malaysia supports the development of regulatory framework and technical requirements for the operation of earth stations in motion on board aircraft and vessels communicating with GSO FSS space stations in the 12.75-13.25 GHz frequency band (Earth-to-space) under **Method B**, taking into account the following: • ensuring protection of services currently allocated in the same and adjacent frequency bands; • the provisions of RR Appendix **30B**; and • ensuring no changes or restrictions to the allotment in the Plan, assignments in the List of RR Appendix **30B**, and those recorded in the Master International Frequency Register (MIFR) including the assignments arising from the implementation of Resolution **170 (WRC-19)**.

Agenda Item	Subject	Malaysia's Position
1.16	To study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) by non-GSO FSS earth stations in motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution **173 (WRC-19)**.	Malaysia supports the development of regulatory framework and operational conditions to facilitate the use of A-ESIM and M-ESIM communicating with non-GSO FSS space stations in the 17.7-18.6 GHz, 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) frequency bands under **Method B,** while ensuring protection of existing services including the terrestrial stations, GSO FSS networks and other services operating in the same and adjacent frequency bands.

Agenda Item	Subject	Malaysia's Position
1.17	To determine and carry out, on the basis of the ITU-R studies in accordance with Resolution **773 (WRC-19)**, the appropriate regulatory actions for the provision of inter-satellite links in specific frequency bands, or portions thereof, by adding an inter-satellite service allocation where appropriate.	Malaysia supports **No Change** to the 11.7-12.7 GHz frequency band as the studies conducted did not support use of the band for space-to-space links. In addition, Malaysia supports the development of a regulatory framework to enable viable space-to-space operations (between both GSO and non-GSO service provider space stations and associated user non-GSO space stations) within the FSS allocation in the 18.1-18.6 GHz, 18.8-20.2 GHz (space-to-Earth) and 27.5-30 GHz (Earth-to-space) frequency bands, or parts thereof, while ensuring protection of, and not imposing additional constraint to the existing services in the same and adjacent frequency bands. Malaysia is also of the view that the introduction of space-to-space transmissions must ensure the same level of protection for GSO and non-GSO as currently provided in the Radio Regulations and must not impose new constraints on GSO networks and non-GSO systems to protect the inter-satellite links from interference. Considering the above, Malaysia is considering **Method B** to satisfy this agenda item.

Agenda Item	Subject	Malaysia's Position
1.18	To consider studies relating to spectrum needs and potential new allocations to the mobile-satellite service for future development of narrowband mobile-satellite systems, in accordance with Resolution **248 (WRC-19)**.	Considering the required studies under WRC-23 agenda item 1.18 was not fully completed and noting that this is a Region 1 and 2 issue, Malaysia is of the view that any possible regulatory actions and allocation in Region 1 and Region 2 should not cause unacceptable interference and impose adverse impact on existing services in Region 3 in the identified frequency bands and the adjacent frequency bands.
1.19	To consider a new primary allocation to the fixed-satellite service in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2, while protecting existing primary services in the band, in accordance with Resolution **174 (WRC-19)**.	Malaysia supports possible allocation to the FSS in Region 2 in the 17.3-17.7 GHz frequency band (space-to-Earth) while ensuring protection to existing allocations and services in the same and adjacent frequency bands in Region 3. Malaysia is of the view that the additional allocation to Region 2 shall protect the receiving space stations operating under RR Appendix **30A**.
7 Topic A	Tolerances for certain orbital characteristics of non-GSO space stations in the FSS, BSS or MSS.	Malaysia supports the implementation of tolerances for certain orbital characteristics of non-GSO space stations of the FSS, BSS, and MSS, that are not too stringent to allow proper deployment of the systems.

Agenda Item	Subject	Malaysia's Position
7 Topic B	Non-GSO bringing into use post-milestone procedure.	Malaysia supports the development of post-milestone procedures to permit some operational flexibility in the maintenance of the non-GSO system while keeping reasonable alignment over time between the number of capable non-GSO system satellites deployed for a system, and the number notified in the MIFR.
7 Topic C	Protection of geostationary satellite networks in the mobile-satellite service operating in the 7/8 GHz and 20/30 GHz bands from emissions of non-geostationary satellite systems operating in the same frequency bands and identical directions.	Malaysia supports the development of regulatory provisions in addressing the shortcomings and other issues with respect to the protection of GSO MSS from non-GSO systems, by extending the concept of RR No. **22.2** to GSO MSS with respect to non-GSO systems in certain frequency bands.
7 Topic D1	Modifications to Appendix 1 to Annex 4 of RR Appendix **30B**.	Malaysia supports the modification to Appendix 1 to Annex 4 of RR Appendix **30B** to reflect the values of the minimum orbital separation as adopted by WRC-19.
7 Topic D2	New RR Appendix **4** parameters for Recommendation ITU-R S.1503 updates.	Malaysia supports the modification of RR Appendix **4** to support the implementation of agreed revisions to the Recommendation ITU-R S.1503-3, including data elements and modified data items.

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7 Topic D3	BR reminders for BIU and BBIU.	Malaysia supports the addition of footnotes to the RR, providing a formal reminder of the deadline for informing the Bureau of the completion of BIU/BBIU in cases not subject to RR No. **11.47** or RR Appendices **30/30A** § 5.2.7 or RR Appendix **30B** § 8.16, as applicable, and for BIU/BBIU initiated to be sent by the Bureau to the notifying administration.
7 Topic E	RR Appendix **30B** improved procedures for new Member States.	Malaysia supports possible amendments to RR Appendix **30B** to better facilitate any new ITU Member States to obtain a national allotment by reconsidering the priority between the Article 7 requests and the application of Article 6 for additional systems.
7 Topic F	Excluding uplink service area in RR Appendix **30A** for Regions 1 and 3 and RR Appendix **30B**.	Malaysia supports the development of regulatory measures to facilitate equitable feeder-link/uplink spectrum access while taking into consideration existing assignments and allotments in RR Appendices **30A** and **30B**. Malaysia further supports the development of a procedure that allows the exclusion of the territory of an administration from the feeder-link service area of a satellite network of other administrations when requested.
7 Topic G	Revisions to Resolution **770 (WRC-19)** to allow its implementation.	Malaysia supports regulatory corrections and clarifications related to the implementation of the methodology contained in Resolution **770 (WRC-19)** before it can be consistently applied.

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7 Topic H	Enhanced protection of RR Appendices **30/30A** in Regions 1 and 3 and RR Appendix **30B**.	Malaysia supports the enhancement of the protection of Appendices **30/30A** in Regions 1 and 3 and Appendix **30B** for networks in the Plan and the List. Malaysia also supports reasonable solution in ensuring the reference situation is not degraded due to the concept of "implicit agreement" in the RR Appendices **30**, **30A** and **30B**.
7 Topic I	Special agreements under RR Appendix **30B**.	Malaysia supports **Method I2** for the development of a regulatory solution based on specific agreement to allow an administration suffering from low reference situation margin for its national allotment under RR Appendix **30B** to retrieve adequate reference protection margin.
7 Topic J	Modifications to Resolution **76 (Rev.WRC-15)**.	Malaysia supports modification to Resolution **76 (Rev. WRC-15)** to introduce the concept of "consultation process/meetings" to collaboratively determine whether the aggregate interference levels in the Resolution are exceeded.
7 Topic K	Modification to Resolution **553 (Rev.WRC-15)** to remove certain restrictions that prevent administrations from taking effective advantage of the Resolution.	Malaysia supports **Method K2** for the modification to Resolution **553 (Rev. WRC-15)** to remove certain restrictions in the Resolution that could prevent administrations from effectively using the Resolution.

Agenda Item	Subject	Malaysia's Position
General Issues		
2	To examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with further resolves of Resolution **27 (Rev.WRC-19)**, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in resolves of that Resolution.	Malaysia supports the examination and review of ITU-R Recommendations incorporated by reference in the Radio Regulations and, where appropriate, the updating of these references in accordance with Resolution **27 (Rev.WRC-19)**. Malaysia also has no objection regarding the updating of the most recent version of Recommendation ITU-R M.585 on "Assignment and use of identities in the maritime mobile service" (Recommendation ITU-R M.585-9) in the relevant references in the Radio Regulations.
4	In accordance with Resolution **95 (Rev.WRC-19)**, to review the Resolutions and Recommendations of previous conferences with a view to their possible revision, replacement or abrogation.	In accordance with the principle and intent of Resolution **95 (Rev.WRC-19)**, Malaysia supports modification or suppression, as appropriate, the Resolutions and Recommendations contained in Volume 3 of the Radio Regulations to ensure Resolutions and Recommendations of past WRCs remain relevant and kept up to date.

Agenda Item	Subject	Malaysia's Position
8	To consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution **26 (Rev.WRC-19)**.	Malaysia supports the principles and intent of Resolution **26 (Rev.WRC-19)** for administrations to remove their country footnotes or their country names associated with specific footnotes of the Table of Frequency Allocations in Article 5 of the Radio Regulations when no longer required. Malaysia does not intend to modify any footnotes where Malaysia's name has been included in footnotes at previous conferences.
10	To recommend to the Council items for inclusion in the agenda for the next WRC, and items for the preliminary agenda of future conferences, in accordance with Article **7** of the Convention and Resolution **804 (Rev.WRC-19)**.	Malaysia is of the view that proposals for agenda item 10 could be supported, subject to further studies and taking into account the potential coexistence with, and protection of the incumbent services.